[0263] According to the present invention, good user input apparatuses to which the user can directly input object operations and commands to a computer by using a finger tip of the user can be provided.

[0264] According to the present invention, good user input apparatuses to which the user can input object operations and commands to a computer in a non-contact manner can be provided.

[0265] According to-the present invention, good non-contact user input apparatuses which can recognize the information of two or more points, the shape of an approaching object, and the information of the distance to an object can be provided.

[0266] In a non-contact user input apparatus according to the present invention, a first capacitor-equivalent circuit equivalent to a capacitor is virtually formed at each of the intersections of transmission electrodes and receiving electrodes. A second capacitor-equivalent circuit is virtually formed in parallel to the first capacitor-equivalent circuit when an electrically conductive object, including a user's finger tip, approaches. The capacitance of the second capacitor-equivalent circuit is changed according to the extent of approaching of the electrically conductive object, including a finger tip. As a result, alternating current flowing through the first capacitor-equivalent circuit is changed. Therefore, with such a phenomenon being used, the non-contact user input apparatus can detect the contact of the finger tip and also measure the distance to the approached finger tip.

[0267] By scanning the transmission electrodes by alternating current and applying the current, an input position can be determined according to the positional relationship between a transmission electrode to which alternating current was sent and a receiving electrode which received alternating current. The non-contact user input apparatus can measure the outline of an approaching object by tracing the intersections of transmission electrodes and receiving electrodes where input positions are detected. In other words, the non-contact user input apparatus can detect approaching of an object, including a user's finger tip, and also recognize the outline of the object. Even when two or more users attempt to access the non-contact user input apparatus at the same time, finger tips of the users can be separately recognized.

1-42. (Canceled)

43. A user input apparatus for receiving data or a command input by the user to a computer, characterized by comprising:

user input means for the user to input data or a command by using the user's human body; and

use-form detection means for detecting a form in which the user uses the user input means by the user's human body, and

characterized in that

the user input means is formed of a combination of a keyboard and a mouse; and

the use-form detection means determines whether a first use mode in which the user can perform key inputs by using both hands or a second use mode in which the user uses the mouse by one hand and can perform key inputs only by the other hand is used.

44. A user input apparatus for receiving data or a command input by the user to a computer, characterized by comprising:

user input means for the user to input data or a command by using the user's human body; and

use-form detection means for detecting a form in which the user uses the user input means by the user's human body, and,

characterized in that

the use-form detection means determines whether an another-terminal use mode in which the user is using a portable telephone or another information terminal by using at least one hand is used.

45. A user input apparatus for receiving data or a command input by the user to a computer, characterized by comprising:

user input means for the user to input data or a command by using the user's human body; and

use-form detection means for detecting a form in which the user uses the user input means by the user's human body, and,

characterized in that

the user input means is a keyboard;

the use-form detection means comprises:

a transmission electrode disposed almost at the center of the keyboard;

a transmitter for supplying alternating current for transmission to the transmission electrode;

a first receiving electrode disposed almost at the left end of the keyboard;

a second receiving electrode disposed almost at the right end of the keyboard;

a first receiver for receiving alternating current flowing through the first receiving electrode; and

a second receiver for receiving alternating current flowing through the second receiving electrode;

a first capacitor-equivalent circuit equivalent to a capacitor is formed between the transmission electrode and the first receiving electrode, and a second capacitor-equivalent circuit equivalent to a capacitor is formed between the transmission electrode and the second receiving electrode;

a first subordinate capacitor-equivalent circuit is formed in parallel to the first capacitor-equivalent circuit when a human body approaches the left-hand side of the keyboard, or a second subordinate capacitor-equivalent circuit is formed in parallel to the second capacitor-equivalent circuit when a human body approaches the right-hand side of the keyboard; and

it is determined whether the user is using the left-hand side and/or right-hand side of the keyboard, according to a change in alternating current flowing through the first and/or second capacitor-equivalent circuit, the